$$UCL = \overline{x} + t_{.975} \left(\frac{s}{\sqrt{n}} \right)$$

And \bar{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.975}$ is the t statistic for a 97.5% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

and

(B) Any represented value of the fuel utilization efficiency or other measure of energy consumption of a basic model for which consumers would favor higher values shall be less than or equal to the lower of:

(1) The mean of the sample, where:

$$\overline{x} = \frac{1}{n} \sum_{i=1}^{n} x_i$$

and, \overline{x} is the sample mean; n is the number of samples; and x_i is the i^{th} sample;

(2) The lower $97\frac{1}{2}$ percent confidence limit (LCL) of the true mean divided by 0.95, where:

$$LCL = \overline{x} - t_{.975} \left(\frac{s}{\sqrt{n}} \right)$$

And \overline{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.975}$ is the t statistic for a 97.5% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

- (ii) In calculating the measures of energy consumption for each unit tested, use the design heating requirement corresponding to the mean of the capacities of the units of the sample.
- (b) Certification reports. (1) The requirements of §429.12 are applicable to direct heating equipment; and
- (2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: Direct heating equipment, the annual fuel utilization efficiency (AFUE) in percent (%), the mean input capacity in British thermal units per hour (Btu/h), and the mean output capacity

in British thermal units per hour (Btu/h)

[76 FR 12451, Mar. 7, 2011; 76 FR 24768, May 2, 2011, as amended at 76 FR 38292, June 30, 2011]

§ 429.23 Conventional cooking tops, conventional ovens, microwave ovens.

- (a) Sampling plan for selection of units for testing. (1) The requirements of §429.11 are applicable to conventional cooking tops, conventional ovens and microwave ovens; and
- (2) For each basic model of conventional cooking tops, conventional ovens and microwave ovens a sample of

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sufficient size shall be randomly selected and tested to ensure that—

(i) Any represented value of estimated annual operating cost, energy consumption or other measure of en-

ergy consumption of a basic model for which consumers would favor lower values shall be greater than or equal to the higher of:

(A) The mean of the sample, where:

$$\overline{x} = \frac{1}{n} \sum_{i=1}^{n} x_i$$

and, \overline{x} is the sample mean; n is the number of samples; and x_i is the ith sample; Or.

(B) The upper $97\frac{1}{2}$ percent confidence limit (UCL) of the true mean divided by 1.05, where:

$$UCL = \bar{x} + t_{,975} \left(\frac{s}{\sqrt{n}} \right)$$

And \overline{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.975}$ is the t statistic for a 97.5% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

and

(ii) Any represented value of the energy factor or other measure of energy consumption of a basic model for which

consumers would favor higher values shall be less than or equal to the lower of:

(A) The mean of the sample, where:

$$\overline{x} = \frac{1}{n} \sum_{i=1}^{n} x_i$$

and, \overline{x} is the sample mean; n is the number of samples; and x_i is the i^{th} sample; or,

(B) The lower $97\frac{1}{2}$ percent confidence limit (LCL) of the true mean divided by 0.95, where:

$$LCL = \overline{x} - t_{.975} \left(\frac{s}{\sqrt{n}} \right)$$

And \overline{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.975}$ is the t statistic for a 97.5% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

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- (b) Certification reports. (1) The requirements of §429.12 are applicable to conventional cooking tops, conventional ovens and microwave ovens; and
- (2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: The type of pilot light and a declaration that the manufacturer has incorporated the applicable design requirements.

[76 FR 12451, Mar. 7, 2011; 76 FR 24769, May 2, 2011]

§429.24 Pool heaters.

- (a) Sampling plan for selection of units for testing. (1) The requirements of §429.11 are applicable to pool heaters; and
- (2) For each basic model of pool heater a sample of sufficient size shall be randomly selected and tested to ensure that any represented value of the thermal efficiency or other measure of energy consumption of a basic model for which consumers would favor higher values shall be less than or equal to the lower of:

$$\overline{x} = \frac{1}{n} \sum_{i=1}^{n} x_i$$

and, \overline{x} is the sample mean; n is the number of samples; and x_i is the i^{th} sample;

- (i) The mean of the sample, where:
- (ii) The lower $97\frac{1}{2}$ percent confidence limit (LCL) of the true mean divided by 0.95, where:

$$LCL = \overline{x} - t_{.975} \left(\frac{s}{\sqrt{n}} \right)$$

And \overline{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.975}$ is the t statistic for a 97.5% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

- (b) Certification reports. (1) The requirements of §429.12 are applicable to pool heaters; and
- (2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: The thermal efficiency in percent (%) and the input capacity in British thermal units per hour (Btu/h).

[76 FR 12451, Mar. 7, 2011; 76 FR 24769, May 2, 2011]

§ 429.25 Television sets. [Reserved]

§ 429.26 Fluorescent lamp ballasts.

(a) Sampling plan for selection of units for testing. (1) The requirements of

- § 429.11 are applicable to fluorescent lamp ballasts: and
- (2) For each basic model of fluorescent lamp ballasts, a sample of sufficient size, not less than four, shall be randomly selected and tested to ensure that—
- (i) Any represented value of estimated annual energy operating costs, energy consumption, or other measure of energy consumption of a basic model for which consumers would favor lower values shall be greater than or equal to the higher of:
 - (A) The mean of the sample, where: